Title (en)

GENE DISRUPTION METHODOLOGIES FOR DRUG TARGET DISCOVERY

Title (de)

VERFAHREN ZUR GENUNTERBRECHUNG ZUM ERKENNEN VON ANGRIFFSZIELEN VON MEDIKAMENTEN

Title (fr)

PROCEDES DE DISRUPTION DE GENES POUR IDENTIFICATION DE CIBLE DE MEDICAMENT

Publication

EP 1348027 A2 20031001 (EN)

Application

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Abstract (en)

[origin: WO02053728A2] The present invention provides methods and compositions that enable the experimental determination as to whether any gene in the genome of a diploid pathogenic organism is essential, and whether it is required for virulence or pathogenicity. The methods involve the construction of genetic mutants in which one allele of a specific gene is inactivated while the other allele of the gene is placed under conditional expression. The identification of essential genes and those genes critical to the development of virulent infections, provides a basis for the development of screens for new drugs against such pathogenic organisms. The present invention further provides Candida albicans genes that are demonstrated to be essential and are potential targets for drug screening. The nucleotide sequence of the target genes can be used for various drug discovery purposes, such as expression of the recombinant protein, hybridization assay and construction of nucleic acid arrays. The uses of proteins encoded by the essential genes, and genetically engineered cells comprising modified alleles of essential genes in various screening methods are also encompassed by the invention.

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